

**THAT WHICH IS CLAIMED:**

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1. A telecommunications terminal block for making and breaking connections with a telecommunications conductor, said terminal block comprising:
    - a base having a first connector and a second connector mounted therein;
    - a first conductor extending from the base, the first conductor being
    - 5 electrically connected to the first connector;
    - a second conductor extending from the base, the second conductor being electrically connected to the second connector; and
    - a service module configured to be removably mounted to the base, the service module comprising:
      - 10 a service wire connector configured to receive a customer telecommunications conductor; and
      - a contact member that electrically connects the service wire connector to the first conductor when the service module is mounted to the base;
    - 15 wherein the first conductor and the second conductor are configured so as to electrically connect the first connector and the second connector when the service module is removed from the base and wherein the service module is configured to interrupt the electrical connection of the first connector and the second connector when the service module is mounted to the base.
  2. The terminal block of Claim 1 wherein the contact member is configured to disconnect the electrical connection of the first connector and the second connector when the service module is mounted to the base.
  3. The terminal block of Claim 2 wherein the service wire connector comprises a first end of a longitudinally extending conductive member positioned

to receive the customer telecommunications conductor and wherein the contact member comprises a second end of the longitudinally extending conductive member, the second end of the longitudinally extending conductive member  
5 contacting the first conductor when the service module is mounted to the base.

4. The terminal block of Claim 3 wherein the service module further comprises a conductor chamber and the service wire connector is positioned in the conductor chamber.

5. The terminal block of Claim 4 wherein the service module further comprises a passageway extending into the conductor chamber having an opening for receiving the customer telecommunications conductor and positioned to pass the customer telecommunications conductor to the service connector.

6. The terminal block of Claim 3 wherein the first conductor is positioned adjacent to the second conductor so as to contact the second conductor when the service module is removed from the base.

7. The terminal block of Claim 6 wherein the service module further comprises a nonconductive member positioned to pass between the first conductor and the second conductor when the service module is mounted to the base and wherein the first conductor and the second conductor comprise a spring clip.

8. The terminal block of Claim 7 wherein the nonconductive member extends from a bottom surface of the service module adjacent the base.

9. The terminal block of Claim 7 wherein the contact member comprises:

- an electrically conductive layer on a surface of the nonconductive member adjacent the first conductor when the service module is mounted to the base; and
- 5 a connector that electrically connects the electrically conductive layer to the service wire connector.

10. The terminal block of Claim 7 wherein the nonconductive member includes a channel in a surface thereof adjacent the first conductor when the service module is mounted to the base and wherein the contact member is received in the channel of the nonconductive member.

11. The terminal block of Claim 10 wherein the first connector comprises a first end of a second longitudinally extending conductive member and the first conductor comprises a second end of the second longitudinally extending conductive member and wherein the second connector comprises a first end of a
- 5 third longitudinally extending conductive member and the second conductor comprises a second end of the third longitudinally extending conductive member.

12. The terminal block of Claim 10 wherein the service wire connector is an insulation displacing connector.

13. The terminal block of Claim 12 wherein the service module further comprises:

- a base portion defining a conductor chamber;
- a cover movably connected to a first end of the base portion on a top
- 5 portion thereof displaced from the base of the terminal block; and
- a passageway in the cover extending into the conductor chamber, the passageway having an opening on a second end of the cover opposite the first end for receiving the customer telecommunications conductor, the passageway being

positioned to pass the customer telecommunications conductor to the insulation  
10 displacing connector; and

wherein rotation of the cover to a closed position connects the customer  
telecommunications conductor to the insulation displacing connector.

14. The terminal block of Claim 10 wherein the terminal block further  
comprises:

a third connector and a fourth connector mounted in the base;

a third conductor extending from the base, the third conductor being  
5 electrically connected to the third connector;

a fourth conductor extending from the base, the fourth conductor being  
electrically connected to the fourth connector, the fourth conductor and the third  
conductor comprising a second spring clip; and

wherein the service module further comprises:

10 a second service wire connector configured to receive a second  
customer telecommunications conductor; and

a second contact member that electrically connects the second  
service wire connector to the third conductor when the service module is  
mounted to the base;

15 wherein the second spring clip electrically connects the third connector and  
the fourth connector when the service module is removed from the base and  
wherein the second contact member is configured to electrically disconnect the first  
connector and the second connector when the service module is mounted in the  
base.

15. The terminal block of Claim 14 wherein the nonconductive member  
includes a second channel in a surface thereof adjacent the third conductor when  
the service module is mounted to the base and wherein the second contact member  
is received in the second channel of the nonconductive member.

16. The terminal block of Claim 15 wherein the second channel and the first channel are in opposite surfaces of the nonconductive member.

17. The terminal block of Claim 15 wherein the first and second customer telecommunications conductors are tip and ring lines.

18. The terminal block of Claim 17 wherein the service module further comprises a line protector electrically connected between the first conductor and the third conductor when the service module is mounted to the elongate base.

19. The terminal block of Claim 14 wherein the second service wire connector comprises a first end of a fourth longitudinally extending conductive member positioned to receive the second customer telecommunications conductor and wherein the second contact member comprises a second end of the fourth  
5 longitudinally extending conductive member, the second end of the fourth longitudinally extending conductive member contacting the third conductor when the service module is mounted to the base.

20. The terminal block of Claim 19 wherein the first longitudinally extending conductive member further comprises a circuit connector and the fourth longitudinally extending conductive member further comprises a second circuit connector, the circuit connector and the second circuit connector being positioned  
5 to receive an electrical device therebetween.

21. The terminal block of Claim 13 wherein the base is elongate and defines a first axis and wherein the first spring clip is positioned adjacent and laterally offset from the second spring clip with reference to the first axis and wherein a plurality of service modules are removably mounted to the elongate base  
5 along the first axis.

22. The terminal block of Claim 21 wherein the base includes an elongate chamber and wherein the first spring clip and the second spring clip are positioned in the elongate chamber.

23. The terminal block of Claim 22 further comprising an environmental sealant in the elongate chamber and in the conductor chamber.

24. The terminal block of Claim 21 wherein the plurality of service modules further comprise clip members and the elongate base further comprises a plurality of clip receptacles spaced along the first axis and configured to receive the clip members to mount the service modules to the elongate base.

25. The terminal block of Claim 21 wherein the service module further comprises:

a conductor chamber; and

an environmental sealant in the conductor chamber;

5 wherein the service wire connector and the second service wire connector are positioned in the conductor chamber.

26. The terminal block of Claim 1 wherein the service module further comprises a circuit contact member that electrically connects to the second conductor when the service module is mounted to the base, the circuit contact member being configured to electrically connect an electrical device between the  
5 first connector and the second connector.

27. A telecommunications terminal block for making and breaking connections with a telecommunications conductor, said terminal block comprising:  
a base having a first connector and a second connector mounted therein;

5 a first conductor extending from to the base, the first conductor being electrically connected to the first connector;

a second conductor extending from the base, the second conductor being electrically connected to the second connector; and

10 a service module configured to be movably mounted to the base for movement between a first position adjacent the base and a second position displaced vertically from the base, the service module comprising:

a service wire connector configured to receive a customer telecommunications conductor; and

15 a contact member that electrically connects the service wire connector to the first connector when the service module is in the first position;

20 wherein the first connector and the second connector are configured so as to electrically connect the first conductor and the second conductor when the service module is in the second position and wherein the service module is configured to interrupt the electrical connection of the first conductor and the second conductor when the service module is in the first position.

28. The terminal block of Claim 27 wherein the contact member is configured to disconnect the electrical connection of the first conductor and the second conductor when the service module is in the first position.

29. The terminal block of Claim 28 wherein the service wire connector comprises a first end of a longitudinally extending conductive member positioned to receive the customer telecommunications conductor and wherein the contact member comprises a second end of the longitudinally extending conductive member, the second end of the longitudinally extending conductive member contacting the first conductor when the service module is in the first position.

31. The terminal block of Claim 30 wherein the service module further comprises a passageway extending into the conductor chamber having an opening for receiving the customer telecommunications conductor and positioned to pass the customer telecommunications conductor to the service connector.

33. The terminal block of Claim 32 wherein the service module further comprises a nonconductive member positioned to pass between the first conductor and the second conductor when the service module is in the first position and wherein the first conductor and the second conductor comprise a spring clip.

35. The terminal block of Claim 33 wherein the contact member comprises:

5 a connector that electrically connects the electrically conductive layer to the service wire connector.



37. The terminal block of Claim 36 wherein the first connector comprises a first end of a second longitudinally extending conductive member and the first conductor comprises a second end of the second longitudinally extending conductive member and wherein the second connector comprises a first end of a third longitudinally extending conductive member and the second conductor comprises a second end of the third longitudinally extending conductive member.

39. The terminal block of Claim 38 wherein the service module further comprises:

a base portion defining a conductor chamber;  
a cover rotatably connected to a first end of the base portion on a top  
5 portion thereof displaced from the base of the terminal block; and  
a passageway in the cover extending into the conductor chamber, the  
passageway having an opening on a second end of the cover opposite the first end  
for receiving the customer telecommunications conductor, the passageway being  
positioned to pass the customer telecommunications conductor to the insulation  
10 displacing connector; and

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40. The terminal block of Claim 36 wherein the terminal block further comprises:

a third connector and a fourth connector mounted in the base;

5 a third conductor extending from the base, the third conductor being electrically connected to the third connector;

a fourth conductor extending from the base, the fourth conductor being electrically connected to the fourth connector, the fourth conductor and the third conductor comprising a second spring clip; and

wherein the service module further comprises:

10 a second service wire connector configured to receive a second customer telecommunications conductor; and

a second contact member that electrically connects the second service wire connector to the third conductor when the service module is in the first position; and

15 wherein the second spring clip electrically connects the third connector and the fourth connector when the service module is in the second position and wherein the service module is configured to electrically disconnect the first connector and the second connector when the service module is in the first position.

41. The terminal block of Claim 40 wherein the nonconductive member includes a second channel in a surface thereof adjacent the third conductor when the service module is in the first position and wherein the second contact member is received in the second channel of the nonconductive member.

42. The terminal block of Claim 41 wherein the second channel and the first channel are in opposite surfaces of the nonconductive member.

43. The terminal block of Claim 41 wherein the first and second customer telecommunications conductors are tip and ring lines.

44. The terminal block of Claim 43 wherein the service module further comprises a line protector electrically connected between the first conductor and the third conductor when the service module is in the first position.

45. The terminal block of Claim 40 wherein the second service wire connector comprises a first end of a fourth longitudinally extending conductive member positioned to receive the second customer telecommunications conductor and wherein the second contact member comprises a second end of the fourth  
5 longitudinally extending conductive member, the second end of the fourth longitudinally extending conductive member contacting the third conductor when the service module is in the first position.

46. The terminal block of Claim 45 wherein the first longitudinally extending conductive member further comprises a circuit connector and the fourth longitudinally extending conductive member further comprises a second circuit connector, the circuit connector and the second circuit connector being positioned  
5 to receive an electrical device therebetween.

47. The terminal block of Claim 40 wherein the base is elongate and defines a first axis and wherein the first spring clip is positioned adjacent and laterally offset from the second spring clip with reference to the first axis and wherein a plurality of service modules are moveably mounted to the elongate base  
5 along the first axis.

48. The terminal block of Claim 47 wherein the base includes an elongate chamber and wherein the first spring clip and the second spring clip are positioned in the elongate chamber.

49. The terminal block of Claim 47 wherein the service module further comprises a circuit contact member that electrically connects to the second conductor when the service module is in the first position, the circuit contact member being configured to electrically connect an electrical device between the first connector and the second connector.

50. A telecommunications terminal block for making and breaking connections between a first telecommunications conductor, a second telecommunications conductor and a service wire, said terminal block comprising:

a housing having a first connector connected to the first telecommunications conductor and a second connector connected to the second telecommunications conductor mounted therein;

a first conductor in the housing, the first conductor being electrically connected to the first connector and having a service wire connector portion configured to receive the service wire;

a switch electrically connecting the first connector and the second connector, the switch having a first state wherein the first connector is electrically connected to the second connector and a second state wherein the first connector is electrically disconnected from the second connector.

51. The terminal block of Claim 50 wherein the switch comprises:

a third connector mounted adjacent the second connector in the housing, the first connector being electrically connected to the third connector; and

a select module positioned over the second connector and the third connector, the select module having a first position electrically connecting the second connector and the third connector and a second position wherein the second connector and the third connector are not electrically connected.

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52. The terminal block of Claim 51 wherein the select module further comprises:

a housing; and

a jumper conductor mounted in the housing of the select module, the

5 jumper conductor having, when the select module is in the first position, a first end positioned to contact the second connector and a second end positioned to contact the third connector.

53. The terminal block of Claim 52 wherein the first connector comprises a first end of a longitudinally extending member and the first conductor comprises an opposite end of the longitudinally extending member and wherein the housing of the terminal block comprises:

5 a base having a first portion and a second portion, the longitudinally extending member being mounted in the first portion with the first conductor extending from an upper surface of the base, the second connector and the third connector being mounted in the second portion of the base;

10 a movably mounted service wire connector member positioned adjacent the upper surface of the base in the first portion, the service wire connector member including a service wire receiving passageway that receives a service wire for connection to the first conductor, the service wire connector member having a first position that provides access to an opening to the service wire receiving passageway to receive a service wire and a second position wherein a portion of the  
15 service wire receiving passageway passes through an opening in the first conductor; and

wherein the housing of the select module is mounted to the base adjacent the second portion.

54. The terminal block of Claim 53 wherein the first conductor is an insulation displacing connector and wherein the service wire connector member is

rotatably mounted to the base to insert a service wire in the passageway into the insulation displacing connector and wherein the housing of the select module is  
5 mounted to the base in a first orientation in the first position of the select module and in a second orientation in the second position of the select module.

55. The terminal block of Claim 54 wherein the second orientation comprises substantially a 180° rotation from the first orientation.

56. The terminal block of Claim 54 wherein the first telecommunications conductor is a tip conductor from a telephone company central office and wherein the second telecommunications conductor is a tip conductor extending from the terminal block downstream from the telephone company  
5 central office and wherein the service wire is a tip service wire from a user premise, the terminal block further comprising:

a ring input connector mounted in the first portion of the base of the housing of the terminal block connected to a corresponding ring conductor from the telephone company central office paired with the tip conductor;

10 a ring output connector mounted in the second portion of the base of the housing of the terminal block connected to a corresponding ring conductor extending from the terminal block downstream from the telephone company central office paired with the tip conductor extending from the terminal block downstream from the telephone company central office;

15 a ring conductor electrically connected to the ring input connector extending from the upper surface of the base of the housing of the terminal block in the first portion;

a ring jumper connector mounted in the second portion of the base of the housing of the terminal block adjacent the ring output connector, the ring jump  
20 connector being electrically connected to the ring input connector;

wherein the select module further comprises a second jumper conductor mounted in the housing of the select module, the second jumper conductor having, when the select module is in the first position, a first end positioned to contact the ring output connector and a second end positioned to contact the ring jumper  
25 connector; and

wherein the service wire connector member further comprises a second service wire receiving passageway that receives a ring service wire for connection to the ring conductor, the service wire connector member having a first position that provides access to an opening to the second service wire receiving passageway  
30 to receive the ring service wire and a second position wherein a portion of the second service wire receiving passageway passes through an opening in the ring conductor.

57. The terminal block of Claim 56 further comprising a ground connector mounted in the second portion of the base of the housing of the terminal block and further comprising an electrical protection device positioned in the housing of the select module so as to be electrically connected between the jumper  
5 conductor and the ground connector and between the second jumper conductor and the ground connector.

58. The terminal block of Claim 56 wherein the base of the housing of the terminal block is elongate and includes a plurality of termination stations, the termination stations having respective first portions and second portions, tip and ring input connectors, tip and ring output connectors, tip and ring service wire  
5 conductors, select modules and service wire connector members to provide a multi-station terminal block.

59. The terminal block of Claim 50 wherein the housing of the terminal block further comprises:

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a base having a first portion and a second portion, the first connector and the first conductor being mounted in the first portion with the service wire  
5 connector portion extending from an upper surface of the base, the second connector being mounted in the second portion of the base;

a movably mounted service wire connector member positioned adjacent the upper surface of the base in the first portion, the service wire connector member including a service wire receiving passageway that receives a service wire for  
10 connection to the first conductor, the service wire connector member having a first position that provides access to an opening to the service wire receiving passageway to receive a service wire and a second position wherein a portion of the service wire receiving passageway passes through an opening in the service wire connector portion of the first conductor;

15 a contact member electrically connected to the second connector and extending from the base of the housing of the terminal block and contacting the first conductor; and

an actuator positioned in the service wire connector member so as to allow the contact member to contact the first conductor in the first position of the service  
20 wire connector member and to break the contact between the contact member and the first conductor in the second position of the service wire connector member.

60. The terminal block of Claim 59 wherein the contact member comprises a first end of an elongate conductive member and wherein the second connector comprises a second end of the elongate conductive member and wherein the actuator comprises a cam.

61. A telecommunications terminal block for making and breaking connections between a telecommunications conductor and a service wire, said terminal block comprising:





64. A method for making and breaking connections with a telecommunications conductor, said method comprising the steps of:

severing X pairs of telecommunications conductor wires from a telecommunications conductor cable extending from a central office facility, the telecommunications conductor cable having more than X pairs of telecommunications conductor wires;

connecting a first end of the severed X pairs of telecommunications conductor wires to a first group of X pairs of wires and a second end of the severed X pairs of telecommunications conductor wires to a second group of X pairs of wires;

extending the first and second group of X pairs of wires to a telecommunications customer service wire junction box; and

selectively connecting ones of the first group of X pairs of wires to at least one of a pair of customer service wires or one of the second group of X pairs of wires in the customer service wire junction box.

65. The method of Claim 64 wherein the customer service wire junction box is a telephone company pedestal and wherein the step of severing further comprises the step of severing at a splice X pairs of telecommunications conductor wires from a telecommunications conductor cable extending from a central office facility.

66. The method of Claim 65 wherein X is 25.

67. The method of Claim 64 wherein the step of selectively connecting further comprises the step of leaving corresponding ones of the second group of X pairs of wires disconnected from ones of first group of X pairs of wires which are connected to a pair of customer service wires.

68. The method of Claim 67 wherein the step of selectively connecting further comprises the step of connecting corresponding ones of the second group of X pairs of wires to ones of first group of X pairs of wires which are not connected to a pair of customer service wires.

69. A telecommunications terminal block for making and breaking connections with a telecommunications conductor, said terminal block comprising:

a base having a first connector and a second connector mounted therein;

a first conductor extending from the base, the first conductor being

5 electrically connected to the first connector;

a second conductor extending from the base, the second conductor being electrically connected to the second connector; and

means for electrically connecting a service wire connector to the first conductor and for interrupting the electrical connection of the first connector and  
10 the second connector when the first conductor is connected to the service wire connector and means for electrically connecting the first connector and the second connector when the first conductor is not connected to the service wire connector.

70. A telecommunications terminal block for making and breaking connections with a severed telecommunications conductor, comprising:

means for connecting to a first end and a second end of the severed telecommunications conductor; and

5 means for connecting the first end to a customer service wire and disconnecting the first end from the second end when the first end is connected to the customer service wire and for connecting the first end and the second end when the first end is not connected to the customer service wire.

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